# This Page Is Inserted by IFW Operations and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

### IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

#### **PATENT SPECIFICATION**

Convention Date (Germany): Aug. 4, 1926.



Application Date (in United Kingdom) : July 26, 1927. Complete Accepted: Oct. 27, 1927.

COMPLETE SPECIFICATION.

#### Insertable Central Stock Magazine for Cartridges with Projecting Edges.

We, MAUSER-WERKE ARTIENGESELL-SCHAFT, located at Oberndorf on the Neckar, Germany, a corporation duly organised under the laws of Germany, 5 do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:-

The present invention has reference to a central stock magazine for fire arms of all kinds, in which a large number (25 and more) of cartridges with projecting edges can be arranged in a zig-zag like 15 manner. The creation of such magazines for such edged cartridges, was prevented pre-eminently by the difficulty of arranging the cartridges in such an orderly manner that the edge of an upper 20 cartridge should always lie in front of

the edge of the one lying beneath it. Now in order to obtain the orderly insertion of the cartridges in the magazine, according to the present invention, as shown in the accompanying drawings in one constructional example given by way of example in Figures 1-4, firstly the magazine lips l are by means of inwardly projecting lugs  $l^1$  in their rear part joining on to the rear wall of the magazine for a short (block) section a-b arranged to stand more closely together than usual, so that the introduction of a cartridge at this point of the magazine 35 is quite impossible (Figures 1-3). The filling of the magazine with cartridges is, therefore, only possible before this block section a-b, as only before this point are the magazine lips made wide 40 enough to allow the pressing in of the cartridges into the magazine. cartridge to be inserted into the magazine must, as may be seen from Figure 4

be pressed with its edge under the lugs 11

45 and here pushed upon the wall of the

stretch b-a. As the width of the free magazine opening opposite the cartridge is shortened to the extent of the block section a-b consequently the shot of the 50 cartridge, as long as it is not fully pressed in and pushed back so as to bear in its correct position against the rear wall of the magazine, projects in a blocking manner and beyond the front wall 55 of the magazine and thus prevents another cartridge being pushed into the magazine, as long as the first one has not taken up its proper position in the magazine. Consequently all the cart- 60 ridges inserted in the magazine must be caused to bear with their edges positively against the wall of the magazine whilst, as each succeeding cartridge can only be pressed into the magazine from 65 the front, the edge of the cartridge last inserted must lie before the edge of the preceding one already introduced into

the magazine. In order to maintain the position of the 70 cartridge edges during the filling and emptying of the magazine, the width of the magazine is, corresponding to the lesser lower width of the bundle or group of cartridges inserted in the magazine in a fan-like manner, arranged to taper or decrease in width to the same extent as the fan-like bundle of cartridges, so that any hurling together of the cartridges contained in the maga- 80 zine by the recoil set up by firing is rendered impossible, and thus the maintenance of the cartridge edges in their orderly position is ensured. Consequently the forming of the magazine 85 walls is so effected that the magazine may be rendered suitable for the reception of a large number of cartridges of the edged type. The side walls of the magazine are bent radially in order to 90 obtain a suitable form for the inserted

bundle of cartridges and, thus, according

magazine to the extent of the section or [Price 1/-]

to the invention secondly the rear wall  $w^1$  of the magazine is formed into a circle whilst, taking as a basis a pointed shot edge cartridge of the type shown in Figure 4, the radius of curvature for the central position Z is preferably calculated at  $r=300^{\text{m}}$ , whilst the curvature of the front wall  $w^2$  is composed of two tangential circular arcs, the radii of 10 which for the above mentioned embodiment are preferably arranged with  $r^1 = 170$  and  $r^2 = 250^{\text{m/m}}$ . Through this composition and the curvature of the arc of radius  $r^1$ , and by suitably locating the 15 centre  $Z^1$  of said arc, it is realized that the uppermost part c-d (Figure 1) of the front wall runs obliquely in relation to the rear wall, so that the upper part of the magazine widens rapidly. As the orderly insertion of the upper 20 cartridges is especially jeopardized by the tilting movements induced by the pressing and pushing in of cartridges under the magazine slips, this part of the magazine chamber must be especially and accurately shaped to the external form of the bundle of cartridges lying there, and this is secured by the special oblique position of the wall section c-d.

30 However, in inserting the upper cartridge in the magazine, should by any chance its edge get behind the edge of the cartridge lying beneath it instead of in front of it as is necessary, then the 35 special shaping of the section c-d will cause the misplaced cartridge, in rising in this section, to be pushed forwards, so that its edge will again come in front of the edge of the lower cartridge, and 4) hence into the proper orderly position, required. The formation of the maga-

zine wall on the section c-d thus induces and ensures the positive correct positioning of the cartridge with the 45 requisite marginal adjustment which alone can ensure a faultless loading and firing of the weapon.

The lower part, section d-e of the front wall w<sup>2</sup> is preferably curved with 50 a radius of 250 m/m whilst, through the selection shown of the centre Z<sup>2</sup> upon this section a relatively lesser tapering of the magazine width, corresponding to

the form of the bundle of cartridges lying in this part of the magazine, is secured.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we

60

70

75

85

95

100

1. Insertable central stock magazine for edge cartridges characterised by the fact that for rendering possible the zigzag like insertion of a large number of such cartridges with a projecting edge the magazine aperture in the rear part possesses an additional blocking contraction the magazine lips being so broadened towards the inside that the insertion of a cartridge at this rear section (a-b) is quite impossible and the cartridges can always only be inserted from the front with their edges towards the rear with the edge of the following cartridge in front of that of the preced-

ing one.
2. Central stock magazine according to Claim 1, characterised by the fact that with a uniform circular curving of the rear wall, the curvature of the front wall is effected according to two combined circular arcs, the shorter upper one of which is of greater and the longer lower one of smaller curvature.

3. A constructional form of the insertable magazine according to Claim 1 for pointed shot cartridges of the type shown in Figure 4, characterised by the fact that the rear wall is arranged with a radius of curvature of  $r = 300^{\text{m}}$ , and the radii of curvature of the arcs of the front wall are  $r^1 = 170^{\text{m}}_{\text{m}}$  and  $r^2 = 250^{\text{m}}_{\text{m}}$ for the corresponding arcs of circle.

4. A central stock magazine for cartnidges with projecting edges, substantially as described and illustrated.

Dated this 26th day of July, 1927.

HASELTINE, LAKE & Co. 28, Southampton Buildings, London, England, and

19-25. West 44th Street, New York, U.S.A., Agents for the Applicants.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1927.

30 Oct. 1927

275606 British

1 SHEET Fig.1.

Charles & Read Ltd. Photo Litho.

COMPLETE SPECIFICATION 275,606 Fig.3. Fig.2. [This Drawing is a reproduction of the Original on a reduced scale] **B**-Fig. 4. 0  $w^2$ 

Central Alock may